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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/777,969	02/12/2004	Hsueh-Chin Liao	0195-31UA	7441

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EXAMINER

YEAGLEY, DANIEL S

ART UNIT	PAPER NUMBER
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3611

DATE MAILED: 10/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

HL

Office Action Summary

Application No.

10/777,969

Applicant(s)

LIAO ET AL.

Examiner

Daniel Yeagley

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14-16 is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☒ Claim(s) 8-13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3, 4 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Sugiura '676.

Sugiura shows an electrically powered bicycle having a front fork assembly rotatably mounted to a front portion of a frame with inherent removably connected handlebar tube connected to a handlebar at an upper portion of the front fork assembly, a seat tube extending from an upper surface of a main frame tube and includes an inherent common pair of structures of a rear fork assembly that extend from a rear portion of a bicycle frame with a wheel mounting bracket positioned below the main frame tube for attaching a rear wheel having a rim and spokes as clearly seen in figure 1, and further shows the feature of a drive mechanism comprising a first toothed gear 8 connected to a shaft of an electric motor 1 being engaged with a second toothed gear 7 which is connected to the rim of the wheel for providing a rotating force to the wheel, wherein the drive mechanism is disposed between the adjacent electric motor and the wheel.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiura '676 in view of Suga '186.

Sugiura disclosed an electrically powered bicycle having an inherent common pair of rear fork structures that extend from a rear portion of a bicycle frame, that included a rear wheel with rim and spokes having a drive mechanism comprised of a first toothed gear connected to a motor shaft engaged with a second toothed gear connected to the rim of the wheel, such that the drive mechanism is disposed between the motor and the wheel, but failed to clearly show the motor being mounted between an inner surface of one of the structures and the wheel, and failed to show the diameter of the motor being greater than the thickness of the electric motor.

Suga shows an electric powered bicycle having a pair of structures extending from a frame with an electric motor G mounted adjacent to the rear wheel, wherein the diameter of the motor is greater than the thickness of the electric motor (figure 4) and is further shown being disposed between an inner surface of one of the structures 14 and the wheel 7 as claimed.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the rim driven electric powered motor means of Sugiura with a rim driven motor mechanism having a disc shaped DC motor constructed with a greater diameter than the thickness of the motor for providing an electric motor with a more compact smaller structure fitted within the frame structure for added protection and a more enhanced aesthetic appearance simply dependent upon users preference which utilizes a more compact disc shaped internal fitted motor to drive a wheel as suggested by Suga compact disposed motor.

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5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiura '676 as modified by Suga '186 in further view Shirazawa '551.

Sugiura as modified by Suga disclosed an electrically powered bicycle having an electric motor mounted adjacent to the wheel with a motor diameter being greater than the thickness of the motor as claimed but failed to disclose the details of the motor, wherein the electric motor comprises a permanent magnet direct current motor having a disc-shaped rotor.

Shirazawa shows an electrically powered bicycle having an electric motor adjacent to the wheel (figure 1, page 2) which discloses the features of the electric motor 62 being a permanent magnet direct current motor having a disc-shaped rotor 90 as claimed.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have further modified the electric powered motor of Sugiura rim driven electric powered bicycle as modified by the compact interior disposed electric motor of Suga with an electric motor that further incorporates known electric motor features, such as a permanent magnet direct current motor with disc-shaped rotor as suggested by Shirazawa to rotational drive the wheel of the bicycle simple as an alternative more compact electric motor which applicant further acknowledges as being well known in the art (page 7).

Allowable Subject Matter

6. Claims 14 – 16 are allowed.

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7. Claims 8 – 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

8. Applicant's arguments with respect to claims 1 – 7 have been considered but are moot in view of the new ground(s) of rejection as now claimed as stated above, wherein Sugiura more clearly shows the rim driven feature as now claimed.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kolaczowski '545, Hult '989, Murakami et al '366 and Resele '705 show a bicycle with a rim engaging drive means.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Yeagley whose telephone number is (571)-272-6655. The examiner can normally be reached on Mon. - Fri; first Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lesley D. Morris can be reached on (571) - 272 - 6651. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

D.Y.


LESLEY D. MORRIS
SUPERVISORY PATENT EXAMINER
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